

# Record quake unleashes tsunami on Japan

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ABC News (Australian Broadcasting Corporation)

A massive 8.9-magnitude earthquake rocked northeast Japan late on Friday afternoon, setting a nuclear plant ablaze and unleashing a 10-metre tsunami that tossed ships inland and left at least 110 people dead.

Police said many others were injured in Tokyo and coastal areas of the main Honshu island, while television footage showed scenes of widespread devastation and flooding.

A monster wave hit near Sendai city where a tide of black water sent shipping containers, cars and debris crashing through streets and across open farmland destroying everything in its path.

The National Police Agency says 110 people have been confirmed dead and 350 are missing, with at least 544 others injured in the tremor.

A spokesman for the agency says that death toll does not include 200-300 bodies which were reportedly found on a beach in Sendai.

Police in Sendai also reported a major explosion at petrochemical complex in the city.

The government said the tsunami and quake, which was felt as far away as Beijing 2,500 kilometres away, had caused "tremendous damage" while aerial footage showed massive flooding in northern towns.

Seismologists say the quake was 160 times more powerful than the one that devastated Christchurch last month. Police say a ship carrying 100 people was swept away by the tsunami in Miyagi prefecture. Fire engulfed a large waterfront area in Kesennuma city in Miyagi prefecture. "I've never seen anything like this," said Ken Hoshi, a local government official in Ishinomaki, a port city in Miyagi prefecture.

The quake was the largest to hit Japan, the fifth strongest tremor worldwide since 1900 and the seventh strongest in history, according to the US Geological Survey and Japanese seismologists.

The Pacific Tsunami Warning Centre issued a widespread warning for territories as far away as South America and Hawaii, where people were ordered to evacuate coastal areas.

"An earthquake of this size has the potential to generate a destructive tsunami that can strike coastlines near the epicentre within minutes and more distant coastlines within hours," the centre said in a statement.

But fears of the tsunami wreaking destruction across the Pacific Ocean subsided after waves hit Russia and Taiwan without causing any major damage. Small tsunami waves also hit the Philippines and Indonesia's eastern coastline without causing any damage.

The Bureau of Meteorology says there is no tsunami threat to Australia. Television footage showed a wide, muddy tide moving rapidly across a residential area near the Natori River in Sendai. Public broadcaster NHK said several dozen houses had been washed away in Miyagi prefecture. There are reports a dam has broken in Fukushima prefecture, washing away a number of homes. The tsunami also reached Sendai airport, submerging the runway while a process known as liquefaction, caused by the intense shaking of the tremor, turned parts of the ground to liquid.

A fire in the turbine building of Onagawa nuclear plant in Miyagi prefecture has been brought under control, Kyodo News reported. The government had earlier tried to reassure people there was no danger of a leak from the country's network of nuclear power plants. In the capital, where millions evacuated strongly swaying buildings, multiple injuries were reported when the roof of a hall collapsed during a graduation ceremony, police said. Plumes of smoke rose from at least 10 locations in the city, where 4.4 million homes suffered power outages. An oil refinery was ablaze in Chiba outside Tokyo.

### **Aftershocks**

The first quake struck just under 400 kilometres northeast of Tokyo, the USGS said. It was followed by more than a dozen aftershocks, one as strong as 7.1. "We were shaken so strongly for a while that we needed to hold on to something in order not to fall," said an official at the local government of the hardest-hit city of Kurihara in Miyagi prefecture.

"We couldn't escape the building immediately because the tremors continued... City officials are now outside, collecting information on damage," she said.

A major blackout occurred across a wide area of north-eastern Japan. Prime minister Naoto Kan quickly assembled his cabinet after the quake, and the government dispatched naval vessels from near Tokyo to Miyagi. The quake affected the nation's key transportation systems, including Narita airport, which has reopened for departing flights after its runways were shut for safety checks. The quake, which hit at 2:46pm (local time) and lasted about two minutes, rattled buildings in greater Tokyo, the world's largest urban area and home to 30 million people. In Tokyo, where the subway system stopped, sirens wailed and people streamed out of buildings.

### **'Big one'**

An estimated 11,000 Australians live in Japan, mostly in Tokyo and Osaka. The Department of Foreign Affairs is scrambling to determine the well-being of Australians in the worst affected regions of the country.

There are 45 Australian citizens registered with the embassy in the areas that have suffered the most damage; Miyagi, Iwate and Fukushima. But the department says the actual number of Australians in those regions is likely to be much higher. DFAT says all Australian embassy and consulate staff in Japan are safe. Prime Minister Julia Gillard says Australia stands ready to help in the quake aftermath. "It's going to be a very stressing, difficult, tragic time for our friends in Japan. It is very apparent that the

Japanese people have been dealt an incredibly cruel blow," she said.

Japan sits on the Pacific ring of fire, which is dotted with volcanoes, and Tokyo is situated in one of its most dangerous areas.

The last time a "big one" hit Tokyo was in 1923 when the great Kanto earthquake claimed more than 140,000 lives, many of them in fires. In 1855, the Ansei Edo quake also devastated the city.

In 1995 the Kobe earthquake killed more than 6,400 people.

More than 220,000 people were killed when a 9.1-magnitude quake hit off Indonesia in 2004, unleashing a massive tsunami that devastated coastlines in countries around the Indian Ocean as far away as Africa.

Small quakes are felt every day somewhere in Japan and people take part in regular drills at schools and workplaces to prepare for a calamity. Nuclear power plants and bullet trains are designed to automatically shut down when the earth rumbles and many buildings have been quake-proofed with steel and ferro-concrete at great cost in recent decades.